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Draft.

Lower Willamette Group

Co-Chairperson: Trey Harbert, Port of Portland

Co-Chairperson: Bob Wyatt, NW Natural

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RE: Portland Harbor Superfund Site Data Quality Objective Problem Statements

Dear Wally, Chip, and Tara:

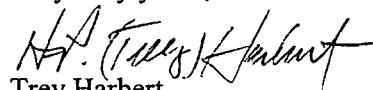
As discussed in the ad hoc technical work groups, we are enclosing the problem statements for the draft data quality objectives (DQOs) for the LWG. On May 9, 2002, the LWG will provide the entire draft DQO for each of these problem statements as requested by EPA. These draft DQOs are provided as interim deliverables, per EPA request, and are not formal deliverables per the AOC.

The DQOs are part of the overall planning for the RI/RA/FS process. The work plan, which will be delivered to EPA on June 7 and June 14, 2002, contains the background information and planning processes utilized in developing the DQOs. The LWG consultant team is continuing to refine the DQOs to more accurately represent the issues in the river with the resulting DQOs in the work plan reflecting this process.

It is the LWG's recommendation that the DQOs be evaluated and reviewed within the context of the information and processes contained in the work plan. This will give the reviewer a framework to better understand the background information that went into developing the DQOs, and how the DQOs shape the sampling and analysis plan. Reviewing the problem statements independently of the DQOs and the supporting information in the work plan could lead to misinterpretations or confusion as to the intention of the statements.

If you have any questions regarding the attachments, please contact us.

Very truly yours,



Trey Harbert

Co-Chair



Larry Patterson

Treasurer

cc: LWG Executive Committee
LWG Legal Committee

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Portland Harbor Draft Data Quality Objective (DQO) Problem Statements

(Step #1 of the DQO Process)

ECOLOGICAL RISK ASSESSMENT

1. **Amphibians.** If amphibian habitat areas are identified in the Round 1a reconnaissance survey, then amphibians may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.
2. **Aquatic Plants.** If aquatic plants are identified in the Round 1a reconnaissance survey, then aquatic plants may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.
3. **Aquatic Invertebrates:**
 - a. Aquatic invertebrates may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.
 - b. There is a need for additional characterization of the aquatic invertebrate community to better understand their potential exposure pathways and their role in the food chain within the ISA.
4. **Fish.** Fish may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.
5. **Birds.** Birds may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.
6. **Mammals.** Mammals may be at risk from exposure to chemicals that are the result of historical and ongoing releases and/or sources within the ISA.

HUMAN HEALTH RISK ASSESSMENT

1. **Human Health.** Need to estimate potential risks to human health associated with exposure to chemicals that are a result of historical and ongoing releases and/or sources within the ISA.

PHYSICAL SYSTEM

1. **Physical.** The spatial and temporal scales of sediment transport are not well understood. Sediment transport may affect contaminant distribution and ecological and human health exposure. Sediment transport processes/hydrodynamics may affect selection of remedial alternatives.

DRAFT DOCUMENT: DO NOT QUOTE OR CITE

This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or part.

Portland Harbor Draft Data Quality Objective (DQO) Problem Statements

(Step #1 of the DQO Process)

NATURE AND EXTENT

1. **Nature and Extent.** Historical data show that contaminants are present in sediments in the lower Willamette River. Distribution of sediment contaminants is not well documented in all areas. Surface sediments may act as a source to other areas of the river. Based on known physical transport processes, the stability of the sediment contaminant distribution is uncertain. Information on concentrations of contaminants in the water column is limited.

GROUNDWATER

1. **Groundwater.** The risk to ecological and human receptors from exposure to certain chemicals in groundwater discharging to the river may not be determined through sediment sampling. The chemical class of interest that is not addressed through sediment sampling is volatile organic compounds (VOCs).

NATURAL ATTENUATION

1. **Natural Attenuation.** Need to understand specific elements of the physical system sufficient to make a determination of candidate natural attenuation areas.

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